## United States Patent [19] DiSanto et al.

[11] Patent Number:

4,889,603

[45] Date of Patent:

Dec. 26, 1989

[54]			ELIMINATING GAS BUBBLES ROPHORETIC DISPLAY				
[75]	Inventors:	<b>A.</b> ]	nk J. DiSanto, North Hills; Denis Krusos, Lloyd Harbor; Frederic E. ubert, Shorehan, all of N.Y.				
[73]	Assignee:	Con N.Y	oytele, Inc., Huntington Station,				
[21]	Appl. No.:	281	,701				
[22]	Filed:	Dec	e. 9, 1988				
[58]			340/787 204/300 EL, 300 PE, , 299 PE, 299 EC, 180.1; 340/787				
[56]		Re	ferences Cited				
U.S. PATENT DOCUMENTS							
	3,668,106 6/1	1972	Ota 204/299 PE				

3,674,475 7/1972 Silverberg ...... 204/299 PE

4,285,801	8/1981	Chiang 204/299 I	R
4,298,448	11/1981	Müller et al 204/180.1 2	X

Primary Examiner—John F. Niebling Assistant Examiner—John S. Starsiak, Jr. Attorney, Agent, or Firm—Arthur L. Plevy

## [57] · ABSTRACT

There is disclosed a method which minimizes bubble growth during electrophoretic cell operation. The method involves exposing the electrophoretic suspension to an ultrasonic probe at a given frequency and amplitude and for a suitable time period just prior to pouring the suspension into the electrophoretic display. Exposure to the ultrasonic probe minimizes bubble growth during actual cell operation as the probe operates to drive out a significant amount of gas contained in the suspension while further affecting the pigment particle characteristics.

10 Claims, 1 Drawing Sheet

